Q-SYS QIO Series

High-density network audio I/O expanders for Q-SYS
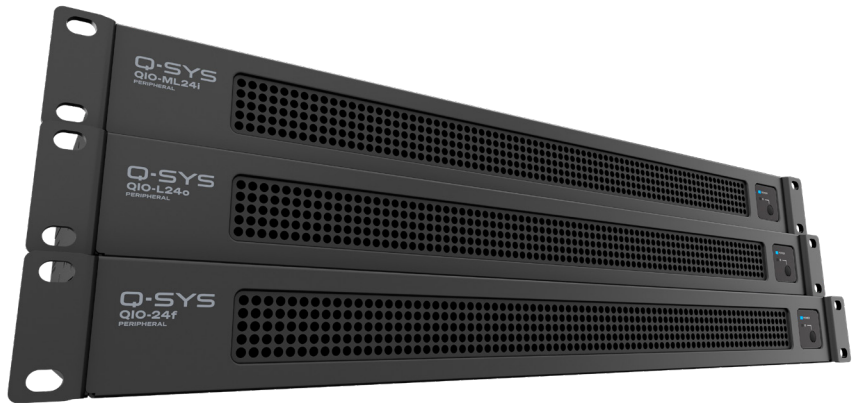
QIO-ML24i
QIO-L24o
QIO-24f

KEY FEATURES

- Native audio I/O expanders for Q-SYS

- QIO-ML24i: Twenty-four (24) mic/line level inputs

- QIO-L24o: Twenty-four (24) line level outputs

- QIO-24f: Eight (8) mic/line level inputs, eight (8) software-definable audio Flex channels and eight (8) line level outputs

- Supports both network and peripheral redundancy

- 1 RU form factor

- 8 × 8 GPIO to integrate third-party device control connectivity

- Configurable +48 VDC phantom power on inputs

- Microphone detection on inputs enables monitoring, usage statistics, and failure notifications

- Integrated relay mute on outputs enables redundant audio output for peripheral redundancy and prevents power-up transients

- Two (2) gigabit Ethernet ports for redundant networked audio

- Simple drag-and-drop integration and comprehensive management via Q-SYS Designer Software and Q-SYS Reflect

- Surface- or rack-mountable

- QIO-CK redundancy cable kit sold separately

The Q-SYS QIO Series network audio expanders enable interoperability with non-networked audio I/O to expand the power of Q-SYS across more devices. The QIO-ML24i, QIO-L24o and QIO-24f address the I/O needs of larger systems with a single peripheral rather than multiple smaller devices, making them ideal for applications such as event productions, large hospitality installations, paging systems, judicial spaces and more.

ADD THE RIGHT I/O WHERE YOU NEED IT

With QIO Series network I/O expanders, you can deploy mic/line audio connectivity into your system to integrate non-networked devices into the Q-SYS Platform.

EFFICIENT I/O INTEGRATION

Deliver 24 channels of audio, as well as GPIO and both network and peripheral redundancy in a 1RU form factor to efficiently integrate a multitude of audio endpoints and simplify the design of larger Q-SYS systems.

MISSION-CRITICAL RELIABILITY

High-density models deliver redundancy features that ensure seamless audio delivery, even during peripheral or network failure. Q-SYS can automatically direct audio to a backup within seconds if a critical fault is detected to minimize failover time and prevent audio interruptions.

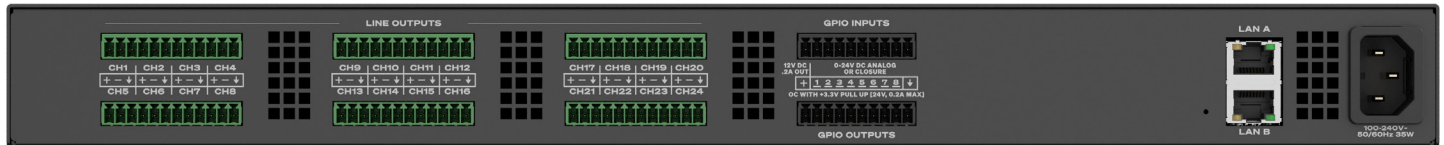### CUSTOMIZABLE TO YOUR ENVIRONMENT

The QIO Series features modular devices that can be combined to fit your unique I/O requirements for centralized, distributed and hybrid processing architectures. By separating I/O from processing hardware, the QIO Series enables you to interface with non-networked audio and control devices precisely where they're needed. And software-definable Flex I/O options support dynamic, multi-use systems, letting you adapt as needs change.

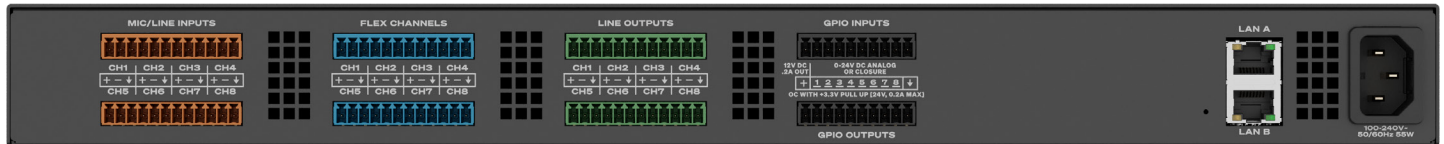### INTEGRATED AUDIO, VIDEO AND CONTROL

QIO Series network I/O expanders are driven by the Q-SYS Full Stack AV Platform, which unifies data, devices and a cloud-first open architecture to deliver a fully integrated audio, video and control solution that offers simpler integration and software-based scalability.

	QIO-ML24i	QIO-24f	QIO-L24o
Connectivity	Twenty-four (24) mic/line level inputs	Eight (8) mic/line level inputs, eight (8) software-definable audio Flex channels and eight (8) line level outputs	Twenty-four (24) line level outputs

MIC/LINE INPUTS

	QIO-ML24i	QIO-24f	QIO-L24o
Maximum input level	+24 dBu (balanced), +18 dBu (unbalanced)		-
Preamplifier gain range	0 dB to 60 dB		-
Input sensitivity range	- 36 dBu to +24 dBu		-
Phantom power	+48 VDC		-
Input impedance	10 kΩ (balanced), 5 kΩ (unbalanced)		-
Equivalent input noise	<-123 dBu, no weighting @ 20 Hz to 20 kHz		-
Input to input crosstalk @ 1kHz	> 110 dB typical, >95 dB max		-
Input frequency response	+/- 0.5 dB, all sensitivities, 20 Hz - 20 kHz		-
INPUT THD+N @ 1 KHZ			
@ +24 dBu sensitivity & +24 dBu input	< 0.004%		-
@ +10 dBu sensitivity & +8 dBu input	< 0.0009%		-
@ -10 dBu sensitivity & -10.5 dBu input	< 0.0009%		-
@ -36 dBu sensitivity & -36.5 dBu input	< 0.006%		-
INPUT DYNAMIC RANGE			
@ +24 dBu sensitivity	> 111 dB		-
@ +10 dBu sensitivity	> 110 dB		-
@ -10 dBu sensitivity	> 106 dB		-
@ -36 dBu sensitivity	> 86 dB		-

LINE OUTPUTS

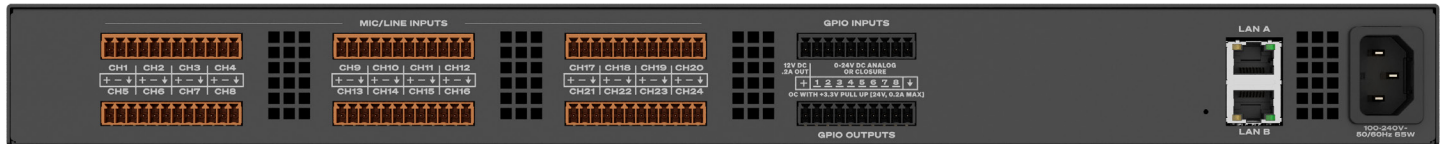|	QIO-ML24i	QIO-24f	QIO-L24o
Sample rate	-	48 kHz	
Bit depth	-	24 bit	
Output audio range level	-	-36 dBu to +24 dBu	
Output dynamic range	-	> 110 dB	
Output to output crosstalk @ 1 kHz	-	> 102 dB typical, > 90 dB max	
Output impedance	-	100 Ω	
Output frequency response	-	+/- 0.5 dB, 20 Hz - 20 kHz	
Output THD+N	-	<0.005%, +24 dBu output level @ 1 kHz	

Q-SYS

	QIO-ML24i	QIO-24f	QIO-L24o
PHYSICAL			
Dimensions (LxWxH)	12.0 × 17.4 × 1.72 in (304.8 × 443.0 × 43.6 mm)		
Weight	8.5 lb (3.86 kg)		
Shipping carton dimensions (L x W x H)	23.4 × 16.6 × 5.5 in (594 × 422 × 140 mm)		
Shipping weight	11.22 lb (5.1 kg)		
Included accessories	1x AC mains power cord (country-specific) Removable rack ears for rack-or surface-mounting		
Optional accessories	QIO-CK redundancy cable kit (sold separately)		
Mounting options	Surface- or rack-mountable; 1RU, full-rack width		
CONNECTORS			
Power supply input	1x universal input rated 100-240 V, 50/60 Hz		
AC input rating	65 W Max	55 W Max	35 W Max
LAN	2x gigabit Ethernet connectors (does not provide or accept PoE)		
ENVIRONMENTAL & COMPLIANCE			
Ambient operating temperature range	32° to 122° F (0° to 50° C)		
Storage temperature range	-4° to 158° F (-20° to 70° C)		
Humidity	5% to 85%, non-condensing		
Thermal dissipation	222 BTU/h	188 BTU/h	119 BTU/h
Regulatory	FCC 47 CFR Part 15 Subpart B, Canada ICES-003, EN 55032, EN 55035, EU RoHS directive 2011/65/EU, WEEE directive 2012/19/EU, REACH, China RoHS GB/T26572, RCM, IEC/EN/UL 62368-1		

QIO-L24o

QIO-24f

QIO-ML24i